AN ESSAY ON THE Incubus, or Night-mare.

By JOHN BOND, M. D.

Ac velut in somnis oculos ubi languida pressit
Nocte quies, necquicquam avidos extendere cursus
Velle videmur, et in mediis conatibus ægri
Succidimus; non Lingua valet non corpore notæ
Sufficiunt vires, nec vox nec verba sequuntur.
VIRGIL. Æneid. xii.

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To his Excellency

A R T H U R   D O B B S , Esquire,

Governor and Captain General of the Province of NORTH CAROLINA.

SIR,

YOUR extensive knowlege in every branch of useful and polite literature will sufficiently justify the propriety of this address, though it offers to your acceptance and protection an Essay merely medical. Besides, the subject I have chosen is in a great measure new, and must, I think, if successfully treated, prove highly useful. It seems therefore peculiarly intitled to your patronage, who are so judicious, so generous, and so zealous a promoter of every discovery which may tend to the public good. I shall not trespass farther on your patience, with the usual apologies of young Authors; nor on your modesty, with the trite panegyrics of Dedicators: the whole tenour of your life has render'd such encomiums superfluous; for you have always pursued the shortest and the surest road to fame, the real *esse quod videri velis*.

Though by this Essay I should acquire no honour from the judicious Sons of Æsculapius; this one however I am sure of, the subscribing myself

Your most obliged,

And most devoted servant,

JOHN BOND.

THE

P R E F A C E.

BEing much afflicted with the Night-mare, self-preservation made me particularly inquisitive about it. In consulting the ancient Physicians, I found little information concerning it, except dreadful prognostics; nor could a rational account of it be expected from them, as they were unacquainted with the circulation of the Blood.

The few Authors who have mention'd it since that glorious discovery, have also given imperfect accounts of it; which are probably owing to their not having felt it themselves: for, as it only seizes People in sleep, continues but a short time, and vanishes as soon as they awake, the Physician has not an opportunity of making observations of his own, but must take all from the description of others, who have labour'd under it. These, I believe, are the reasons that the principal Writers in Physic have taken so little notice of it. These omissions however render an enquiry into the nature of this Disease the more interesting and necessary, and, at the same time, the more difficult.

Under these disadvantages I have ventur'd to communicate the result of my own observations and reflexions on it; hoping, that a greater allowance will be made for the errors in this Essay, as it is perhaps the first that ever appear'd expressly on this subject.

The Night-mare is commonly, and, I believe, justly, attributed to a stagnation of the Blood; but how this stagnation is produc'd, has not been explain'd, so far as I know, in a satisfactory manner.

I have carefully collected the observations of the ancient Physicians concerning the prognostics of this Disorder; not for ostentation, but to shew at the same time the dangerous consequences and antiquity of it, in order to make those afflicted with it the more solicitous to remove its cause in the beginning; for it may be said of the Night-mare, as of many other Disorders, *Vires acquirit eundo*.

Though the most temperate are sometimes afflicted with this Disease, yet experience shews that it is generally the offspring of excess: hence it must have been nearly *coeval* with Bacchus (though it be omitted by the *Coan Oracle*;) and Homer probably alludes to its symptoms in the following lines:

Ως δ' εν ὀνείρω ὀυ δύναται Φευγοντα διωκειν
Οὔτ' αρ ὁ δύναται ὑποfευγειν, ὄυθ' ὁ διωκειν.
Iliad xxii.

I have not introduc'd any thing in this Essay that did not appear serious or probable. I have therefore omitted an inquiry into the origin of many odd epithets and quaint names commonly given to this Disorder; such as *Hag-riding*, *Wizard-pressing*, *Mare-riding*, *Witch-dancing*, *&c.*, nor did I think it requisite to mention particularly the *curious Charms* adapted to each superstitious name.

My aim has been to convey my sentiments with as much brevity and perspicuity as possible. If I have transgress'd this rule, in occasionally introducing some things known, in order to explain others, it was to be the more intelligible; I therefore hope, the more learned will excuse me.

With pleasure I take this opportunity of acknowledging how much the hints I receiv'd from the instructive lectures of my ingenious Preceptor Mr. Monro, contributed to this undertaking.

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CHAP. I.

Of the history and the various opinions concerning the cause of this Disorder.

IN order to convey a distinct idea of the subject of the following pages, I shall, according to the old custom of medical authors, begin with the etymology of it.

Altho' we have reason to believe, as will afterwards appear, that this Disease was known long before the Greek language, yet, the earliest account we have of it, is from the Greek authors, who call'd it Εφιαλτης, and the Romans nam'd it Incubus, both which words partly express its effects.

[2]

In our language it is generally known by the name of the NIGHT-MARE; which strange term probably arose from superstitious notions which the British had, and perhaps still have, of it. How it first obtain'd this odd appellation, I never could learn, nor is it material to know, since that name is sufficient to distinguish it from every other Disease.

The Night-mare generally seizes people sleeping on their backs, and often begins with frightful dreams, which are soon succeeded by a difficult respiration, a violent oppression on the breast, and a total privation of voluntary motion. In this agony they sigh, groan, utter indistinct sounds, and remain in the jaws of death, till, by the utmost efforts of nature, or some external assistance, they escape out of that dreadful torpid state.

As soon as they shake off that vast oppression, and are able to move the body, they are affected with a strong[3] Palpitation, great Anxiety, Languor, and Uneasiness; which symptoms gradually abate, and are succeeded by the pleasing reflection of having escap'd such imminent danger. All these symptoms I have often felt, and hope, that whoever has had, or may have, this Disease, will readily know it by this description, which I have not only taken from my own feelings, but from the observations of many of my acquaintances, who were also afflicted with it, and from the records of the antient observators.

Before I enter into an enquiry concerning the cause of this Disorder, or attempt to assign any one for it myself, I shall first take notice of the principal opinions that have been advanc'd to account for it, and examine how far they are confident with the laws of the animal œconomy; that the judicious reader may see how necessary further enquiries into the nature of this Disorder may be.

[4]

Doctor Willis says, That the Night-mare is owing to some incongruous matter which is mix'd with the Nervous Fluid in the Cerebellum[1]. But, as he has not told us what this matter is, or how it is produced, we can afford it little credit in this enquiry; because plethoric persons, who abound with the purest and richest Blood, in whom such incongruous matter is suppos'd least to prevail, are most subject to this Disorder[2].

Bellini, who, in many other cases, is allow'd to be a pretty accurate theorist, was strangely mistaken in this, when he said, That the Night-mare is an imaginary Disease, and proceeds from the idea of some demon, which existed in the mind the day before[3].

This account is very unworthy a physician, and is a strong evidence that he never felt the heavy effects of this [5] Disorder; otherwise he would have allow'd it to be a real Disease of the Body.

A metaphysician has laid great stress on this Disease, as an argument in defence of some of his wild opinions. He asserts, That it is owing to the operation of certains demons, which impose on, and torment, the mind in sleep[4].

This ingenious hint he took from Bellini, who probably stole it from Paracelsus's doctrine of Archeus faber[5].

The ingenious Doctor Lower is the first author I met with, who observ'd the horizontal position of the Body, and assign'd it as a remote cause of this Disorder, but seems to attribute it immediately to a collection of Lymph in the fourth Ventricle of the Brain.

[6]

He says, "Si supine dormiant, Ventriculus ille quartus, Lympha nimium distensus, Medullam Oblongatam sua gravitate premit, ideoque fluxum liquidi Nervosi in Nervis cordi & respirationi inservientibus impedit[6]."

Perhaps he did not apply his first observation so well as might be expected from one of his abilities; for it seems needless to wait for a slow secretion of Lymph to produce this Disease, since, according to his own account, the return of the Blood from the Head, by the Jugular Veins, is in some measure prevented, and by that means a greater quantity of Blood than usual will be collected in all the vessels of the Brain; which might better answer his purpose, and more effectually obstruct the nervous influence. But before either of these causes could be removed by common methods, life would be at an end, [7]and every fit of the Night-mare would be mortal; but that it often happens otherwise, many can testify. Doctor Lower seems to have founded this theory on the dissection of a Man who died of a Hydrocephalus, and not immediately of the Night-mare: hence that case is ill applied by Bonetus[7].

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[8]

CHAP. II.

An enquiry concerning the real cause of the Night-mare.

HAving mentioned the most remarkable opinions, that have occurr'd to me concerning the cause of this Disease, and shewn them all defective, I shall next consider several circumstances attending an horizontal position of the Body in sleep, in which alone this disease is felt; and endeavour from thence to investigate the real cause of it.

Sleep is the balmy anodyne of nature; and was intended, by the all-wise Author of our being, to ease the toils of the body, dispel the cares of the mind, and to repair the losses sustain'd by the fatigue of the day. In it we see every external stimulus remov'd, the Senses lock'd up, and every Muscle relax'd, except the Heart, the[9] Sphincters, and those concern'd in respiration. Nutrition is then principally perform'd, and then only the Fluids glide equably through the Vessels.

As many of the voluntary Muscles are imployed in keeping the Body erect, 'tis necessary that the Body should be in an inclin'd or horizontal position, in order to relax them, and promote the salutary end of sleep. Accordingly we find, that most of the brute, as well as the human Species, chuse some easy posture of this kind to sleep in.

When the human Body lies horizontally, the Blood must flow in greater abundance to the Head; and with a greater momentum, cæteris paribus, through the Carotid and Vertebral Arteries, than when the Body stands erect; because the Blood, moving through these tubes in an horizontal direction, will not so much resist the force of the Heart, as when it ascends perpendicularly contrary to its own gravity.

[10]

No one, I presume, will doubt the truth of this proposition, who reflects, that it is much easier to move any spherical body on an horizontal plane, than to raise the same body up against a perpendicular wall.

Neither will it be denied, that the quantity as well as the velocity of Blood, flowing into the Carotid and Vertebral Arteries, is increas'd by the horizontal position of the Body, if it be consider'd, that these tubes (particularly the left Carotid) arise from, and proceed almost parallel with the axis of the Aorta, where the velocity of the Blood rushing out of the Heart is greatest. Whence it follows, from Sir Isaac Newton's second general law of motion, and from a well known axiom in hydraulics, that these Arteries must receive more Blood in the same time, than any other branches of the Aorta of the same diameter.

As the Blood must lose most of the motion which it receives from the[11] Heart, in passing through the infinite vascular ramifications, and fine filtres of the Brain, there scarce appears, even in an erect position of the Body, any propelling power to push it back again to the Heart, except we admit the pulsation of the small Arteries belonging to the coats of the Sinuses, and its own gravity. But in an horizontal position, the Blood has not the advantage of its gravity to accelerate its motion through the Jugular Veins; therefore it must move slower, and must be

more subject to obstruction in the vessels of the Brain. Hence we see the use of pillows is to promote and facilitate the return of the Blood through the Jugular Veins: hence we may also observe, the uneasiness and danger attending the too common method of making the feet of beds higher than the heads, since a stoppage of the Blood is always productive of dangerous consequences; of which any one may be soon convinc'd by stooping the Head[12] for a short time; and it will appear, that the Blood is by this means collected in the Veins of the Face, which will produce a Vertigo, and, if long continued, may bring on an Apoplexy. Hence we sometimes hear of people dropping down dead, upon stooping to buckle their shoes. These instances should deter some from putting their pillows under their feet, in order to make the Blood settle in their faces, and to decorate the external part of their Heads at the expence of the internal.

Notwithstanding the inconveniences and bad effects which may arise from the Blood's delay in the Brain, yet, its being sent to the Head in sleep in a greater quantity, may serve many necessary purposes, and render sleep more beneficial and refreshing to animals. First, by distending the Blood-vessels of the Cerebrum, increasing the pressure on that part, and by that means producing sleep. Secondly, by pro[13]moting the secretion, and preparing a store of animal spirits to supply the expence of the ensuing day. Thirdly, by gently encreasing the pressure of the Blood-vessels on the Cerebellum, and perhaps determining a greater quantity of the nervous influence to the Heart, respiratory Muscles, and other parts, whose Nerves spring from that fountain of life. This pressure on the Cerebellum may concur with the rarefaction of the fluids, to render the motions of these organs more regular and vigorous in sleep.

To this mechanical pressure on the Cerebellum, the illustrious Van Sweiten seems to attribute the motion of the Heart: "Cerebelli enim actio in Cor per Nervos, pendet ab ipsa actione Cordis per Arterias[8]."

Tho' the contraction of the Heart is evidently the efficient cause of the Blood's motion, and consequently of [14]the secretion of these spirits in the Cerebellum, yet, without these spirits, the action of the Heart could not be performed. These two causes appear to act in a circle, and mutually depend on each other. Hence Hippocrates divin'd, ὁλον το ζωμα κυκλος εστι. These also convey the idea of a perpetuum mobile; since, as long as life lasts, an animal is really such, and far excels any machine that human art has been yet able to make, or (in the opinion of many philosophers) will ever invent.

The laborious Hoffman ascribes a great deal to this pressure on the Brain, where he says, "[9]Declivior cubitus sanguinis regressum quodammodo impedit, quia per venas jugulares descendere debet, quod elatiori capite commodius peragitur. Hinc, capite nimis demisso ac depresso, profundiores somnii cum insomniis, fiunt, universo corpore [15]torpor inducitur. Eadem ratione, si quis facie prona velut in mensa, in somnum delabitur. Ob difficiliorem sanguinis regressum, gravitatem capiti, et ingenio stupiditatem accersit."

"[10]Sed etiam mechanicæ causæ somnum producunt, compressio nempe Duræ Matris, aut Cerebri, quæcunque nata a Sanguine effuso, inpacto Osse, aquæ in Ventriculis copia."

These, I hope, are sufficient to shew how far the motion of the fluids may be affected by the horizontal position of the Body; which, if duly consider'd, might be of great service in the practice of Physic; and perhaps many effectual derivations might be made, without drawing a drop of Blood. I saw a remarkable instance of this kind in a gentleman of a full habit, who, being ill of a Fever, talk'd rationally and rav'd alternately, as his head was ele[16]vated or depress'd. In acute Diseases, when the motion of the Blood is very rapid through the whole Body, the Brain

must suffer greatly, on account of the horizontal position, to which people in such cases are confin'd; because, the Blood rushing violently into the Arteries of the Brain, and its return being retarded by the Jugular Veins, will remarkably contribute to produce delirious symptoms, so frequent in acute Disorders, which might be in some measure prevented, by raising the Head; for, by that means, the motion of the Blood through the Jugular Veins will be increas'd, the pressure on the Brain will be eas'd, and a safe and sudden derivation from the Head may be made, which may produce very happy effects, where no evacuation could be safely attempted.

Let us next take a view of the Heart, and consider how it may be affected by the various positions of the Body,[17] particularly the supine one, in which the Night-mare generally invades.

The Heart is placed above the Diaphragm: the greater part of it lies in the left cavity of the Breast: its apex or point is turn'd towards the extremity of the sixth true Rib, where its pulsations are commonly felt: it adheres to the Lungs by its large vessels, and is connected to the Diaphragm by the Pericardium[11].

Thus the Heart is suspended in the Breast; and therefore must be subject to the laws of pendulous bodies, which alter their situation according to the different directions of their centers of gravity.

From the above just description of the human Heart, 'tis evident, that when the Body is erect, the parts of the Heart which are commonly called the right and left, ought to be more [18]properly call'd the anterior and posterior.

Hence, when the Body is plac'd on the Back, these become the superior and inferior parts of the Heart.

That the Heart alters its situation in the Breast according to the different positions of the Body, and the different directions of its center of gravity, may be prov'd by the following easy experiments.

If the Finger be applied to that part of the Ribs where the pulsation is felt in an erect position; and if, at the same time, the Diaphragm be contracted strongly, the beatings become immediately weaker, because the Heart is pulled downwards by the Diaphragm.

If one lies on the left side, the point of the Heart is felt beating nearer the Spine of the Back; if we turn on our Backs, it is scarce perceptible; and if we lie on the right side, it intirely vanishes.

[19]

These alterations of the Heart's situation in the Breast, are more remarkable in some persons than in others; and in general I have found, by repeated tryals, that they were most considerable in those who were most subject to the Night-mare.

When the Body lies supine, the Heart necessarily falls on the Vertebræ of the Spine; and therefore, by its own gravity, must compress the left Auricle and Pulmonary Veins, which, at that time, lie directly under its basis; and, by that means, the course of the Blood through the Lungs will be stop'd. Thus the Blood will be collected in the Pulmonary Vessels, and the right, or rather superior Ventricle, not being able to discharge itself into the Pulmonary Artery, will be oppressed by the Blood returning from the Extremities; which, being gather'd in the vessels about the superior part of the Heart, will increase its gravity, and consequently augment the

cause of the[20] obstruction. In this manner the return of the Blood from the Head will be prevented, the tender dilatable vessels of the Brain will be over-distended, the nervous influence obstructed, and the vital motions, in a great measure, if not altogether, stopt. This I take to be a real fit of the Night-mare, and in this manner it appears to be produc'd.

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[21]

C H A P . I II.

An account of the Symptoms.

HAving now discover'd what appears, to me, to be the immediate cause of the Night-mare, viz. the pressure of the Heart on the left or inferior Auricle and Pulmonary Veins, which stops the motion of the Blood through the Lungs, and occasions a general stagnation; let us examine how that hypothesis will account for the several Phænomena or Symptoms, mention'd formerly in the description of this Disease.

The first Symptoms that occur in that catalogue, are frightful Dreams, which generally are the forerunners of this Disorder. "In hoc genere (Somniorum) est Εφιαλτης quem publica persuasio quiescentes opinatur invadere, ac sentientes pondere suo gravare[12]."

[22]

I shall not here undertake to solve that Phænomenon, which has so long puzzled the Metaphysicians, nor pretend to account for all kinds of dreams in a mechanical manner.

However, every one knows that the harmony and connection between the Body and the Mind are so establish'd and constituted, while they are united, that the Diseases of the one always affect the other in a very sensible manner; and experience daily demonstrates, that violent passions of the mind produce Fevers, Fainting Fits, and other severe effects on the Body; e. contra, violent shocks of the Body, acute Diseases, &c. frequently disturb, and raise strange commotions in the Mind, or at least excite extravagant, wild ideas in it. Accordingly we find, that the most eminent Physicians have not scrupl'd to assert, that these effects are often owing to Obstructions and Inflammations of the Membranes of the Brain. If so, may not the violent[23] distentions of the Vessels of the Brain (which always precedes and attends a fit of the Night-mare) make such strong impressions on the origin of the Nerves, or Sensorium Commune, as to occasion hideous associations of ideas, and form frightful spectres in the imagination? Are not these monstrous dreams intended as a stimulus to rouse the sentient principle in us, that we might alter the position of the Body, and by that means avoid the approaching danger? Is not the horizontal posture of the Body, which produces a Plethora in the Vessels of the Brain, and many odd sensations, the most general cause of dreams? Do they ever dream, who sleep in an erect position? Are not the luxurious and the plethoric most subject to disagreeable dreams? Is not the motion and titillation of the Animalculæ in Semine Masculino, the cause of the agreeable dreams which attend nocturnal emissions? Have females such emissions in sleep? Does not perfect[24] sleep consist in a total suspension of the operations of the Mind? May not dreaming, in general, be consider'd as a Disorder of the Body, and justly attributed to some cause, which stimulates the Sensorium Commune, and prevents perfect rest? Do people that sleep after much fatigue, ever dream?

The vast oppression on the Breast, and immobility of the Body, which are always felt in this Disorder, probably arise from the quantity of Blood collected in the Lungs, Vena Cava, right Ventricle, and Auricle of the Heart; nor does the Mind appear to be mistaken in this case, as some have imagined; for it seems the same with regard to the Mind, whether the real action of

the Muscles be constrain'd by a superior external force, or the influence of it over these Muscles be hinder'd by an internal cause. In a fit of the Night-mare, the Mind, conscious of the dangerous situation of the Body, in vain endeavours to alter it,[25] because its power over the Voluntary Muscles is some way suspended, by the obstruction of the Blood; yet the Mind may exert itself as much as if it strove to remove the greatest obstacle. In this case the Mind generally ascribes the immobility of the Body to some great weight laid on the Breast; whereas the cause is really internal: and people judge of the greatness of the oppression, according to the efforts nature makes to overcome the obstruction of the Blood in the Lungs.

Besides, in heavy or profound sleep, the voluntary motions are generally stop'd. Hence, when people awake suddenly, they are for some time Paralytic, before the Animal Spirits obey the commands of the Mind, and actuate the Muscles in the usual manner.

The indistinct Voice is probably owing to the same cause; for the Muscles of the Tongue and Larynx, which form distinct sounds, are of the vo[26]luntary class, which, as was said before, are generally suspended in sleep.

The collapsing of the Lungs, which are, at this time, overloaded with Blood, will exclude the air, that necessary medium of sounds, and sole vehicle of voice.

Heavy sighs and groans are the emphatic expressions of nature in distress, and generally arise from some obstruction in the Lungs; but in a fit of the Night-mare there appears a great accumulation of Blood in the vessels of that part, whence these Symptoms are easily accounted for. It may be observ'd of sighing in general, that when the attention of the Mind is deeply engag'd to any particular object or sensation, and either neglects or is restrain'd from exerting its influence over the organs of respiration, the Blood is stop'd in the Lungs, so that it becomes necessary to draw in a large Chestful of air, in order to give the Blood a free[27] passage from the right Ventricle of the Heart to the left. Hence Melancholy persons, profound Mathematicians, and fond pining Lovers, are most subject to that affection. Such people are also very liable to many Hypochondriac and Chronic Diseases; which often proceed from a defective respiration, or a too slow motion of the Blood through those parts which are agitated by the alternate dilatation and contraction of the Thorax. Hence the Liver and Spleen and the Lungs themselves must suffer most when the attention of the Mind is engag'd by some Disease of its own, and it becomes less sensible of the Disorders of the Body. Hence people in Grief, &c. labour under a double Disease, which, on account of the anxiety, weight, and oppression that is felt from the Blood stagnating about the Heart, is commonly termed Heart-breaking.

An Uneasiness or Anxiety, and Palpitation of the Heart, are the last Symptoms that are commonly felt of the[28] Night-mare, which proceed from the cause lately mention'd; as 'tis then necessary that the Heart should contract itself more frequently, in order to discharge the Blood collected in the Vena Cava, the right Sinus Venosus, and Auricle, during the fit.

Having done what I propos'd in this Chapter, and given the best account that I know of the Symptoms, I should now proceed to the Prognostics and method of Cure; but, as I have shewn how the vital motions are stop'd, and a general stagnation of the Blood is produc'd, it is also incumbent on me to explain how the motion of that vital stream is renew'd by the efforts of nature alone; otherwise it might be objected, that, according to my theory, unless where art interpos'd, every fit of the Night-mare would be mortal.

[29]

CHAP. IV.

Of the Natural Cure.

IN order to shew how persons recover out of a fit of this Disease, by the mere efforts of nature, I shall beg leave to premise a few of the most probable opinions, and best establish'd propositions, concerning Animal Motion, which I shall here take for granted, and refer the reader, for a physical demonstration of them, to the ingenious Essays of Doctors Porterfield, Whytt, Simson, and Haller.

Animal and Muscular Motion is said to be of two kinds, viz. Voluntary, and Involuntary or Habitual.

By Voluntary Motion is meant the action of any Muscle or Muscles produc'd by an immediate or conscious determination of the Mind; of this kind are the several occasional motions of the Body.

[30]

Involuntary or Habitual Motions are such as proceed originally from the Mind also, but are so establish'd, by long custom, that the Mind is not immediately conscious of them, nor can stop them at pleasure[13]. To this class, the Motion of the Heart, the peristaltic Motion of the Stomach and Guts, Respiration, and several Motions of the Eyes belong.

The vital Motions are suppos'd to be continued by a stimulus constantly [31] applied to the Fibres of the Muscles which perform them.

Hence the Ventricles of the Heart are constantly irritated and stretch'd by the Venous Blood, which brings them into contraction, to propel the Blood through the Body.

Thus the Alimentary Tube is mov'd by the irritation of the food, rarefied air, &c.

And in like manner respiration is carried on, by the uneasiness that is felt in the Lungs at the end of every dilatation and contraction of the Thorax, which is owing to the resistance that the Blood meets with, both from the collapsing of the Lungs, and from the pressure of the rarefied air on the small Pulmonary Vessels, during their expansion: to which may be added, the elasticity of the Cartilages.

These several stimuli can only be perceiv'd by a sentient principle, which, in the human species, is call'd the Soul.

When the Soul is first united with the Body, and receives command over[32] the organs of Motion, it seems to have been laid under a kind of necessity, by which it is compell'd to exert these organs in avoiding whatever is hurtful, and in chusing whatever is apparently beneficial, to the Body.

'Tis evident, from the laws of the Circulation, that when the Motion of the Blood through the Lungs is stop'd, for a short time, the right Ventricle of the Heart must be violently distended, and consequently severely stimulated. This strong irritation may bring the Ventricle into a

vigorous contraction, which is all that is wanted to put the admirable machine again in motion; for, as soon as the right Ventricle discharges itself into the Pulmonary Artery, ’tis plain, from the laws of hydraulics, that the Blood must move in the Pulmonary Veins; and therefore the pressure on these vessels must be overcome. Thus the circulation of the Blood will be renew’d, and the vast distention of the vessels about the Heart, will rouse the attention of the Mind[33] to change the uneasy position of the Body as soon as possible; which will alter the direction of the Heart’s center of gravity, and therefore take the pressure off the Pulmonary Veins and inferior Auricle, and by that means afford a free passage to the Blood through the Lungs. In this manner people may recover, without any external assistance.

’Tis highly probable that the Motion of the Blood is renew’d before any of the Voluntary Motions are recovered; for we never find that any of the Voluntary Motions remain after the Motion of the Heart ceases; and the surprising process of generation shews, that the first Motion observable in animal Bodies, is that of the Heart[14]. We have many instances, in Brutes, of the Heart’s Motion continuing long after the action of the Voluntary Muscles is quite de[34]stroy’d[15]. It is not improbable, that the human Heart would contract itself after Death, if the same experiments could, with any degree of humanity, be tried on it, that are made on the Hearts of Brutes: and the great Lord Bacon gives an instance of a criminal’s Heart, which he saw, after torn from the Body, leap up and down for several minutes[16].

In a severe fit of the Night-mare, when the Motion of the Blood, and consequently the Motion of the Heart, is stop’d, the Mind, must be in a terrible agony; and the only chance it has for further communication with the Body, depends upon the vigour and sensibility of the right or superior Ventricle of the Heart; for, if it be not able to push the Blood through the [35]Lungs, and overcome its own weight at the same rime, de Vita Actum est.

From what has been said it appears, that lying on the Back is a dangerous, uneasy position, and should be carefully avoided, even when we are awake. I believe few can lie long on the Back without feeling an uneasiness in the Breast, which is soon remov’d by turning on either Side: but when People are buried in sleep, and are incapable of that action, the consequence is dreadful, for the reason often mention’d. We may be convinc’d, that, if lying on the Back would not impede the Vital Motions, nature would have directed us to chuse that position in sleep, because it requires scarcely any muscular action. But, on the contrary, we find that most of the human species prefer lying on either Side.

As colonel Townshend’s case is a remarkable instance of the dangerous effects which may proceed from lying on the Back, and as it may serve to[36] illustrate my theory of this Disorder, I shall here quote it at full length, that the reader may the more readily observe the analogy between his mechanical suppression of the Vital Motions, and a fit of the Night-mare, It is thus related by Doctor Cheyne, in his English Malady[17].

The CASE of the honourable Colonel TOWNSHEND.

“Colonel Townshend, a gentleman of excellent natural parts, and of great honour and integrity, had for many years been afflicted with a nephritic complaint, attended with constant vomitings, which had made his life painful and miserable. During the whole time of his illness, he had observ’d the strictest regimen, living on the softest vegetables and lightest animal foods, drinking asses milk daily, even in the camp: and [37]for common drink Bristol-water, which, the summer before his death, he drank on the spot. But his illness increasing, and his strength decaying, he came from Bristol to Bath in a litter, in autumn, and lay at the Bell-Inn. Doctor

Baynard (who is since dead) and I were called to him, and attended him twice a day for the space of a week; but his vomitings continuing still incessant, and obstinate against all remedies, we despair'd of his recovery. While he was in this condition, he sent for us early one morning: we waited on him, with Mr. Skrine his Apothecary (since dead also;) we found his senses clear, and his Mind calm, his Nurse and several Servants were about him.

"He had made his will and settled his affairs. He told us he had sent for us to give him some account of an odd sensation, he had for some time observ'd and felt in himself:[38] which was, that composing himself he could die or expire when he pleased, and yet, by an effort or somehow, he could come to life again; which it seems he had tried before he had sent for us. We hear'd this with surprize; but as it was not to be accounted for from any common principles, we could hardly believe the fact as he related it, much less give any account of it; unless he would please to make the experiment before us, which we were unwilling he should do, lest, in his weak condition, he might carry it too far. He continued to talk very distinctly and sensibly above a quarter of an hour about this (to him) surprising sensation, and insisted so much on our seeing the tryal made, that we were at last forced to comply. We all three felt his Pulse first: it was distinct, though small and thready; and his Heart had its usual beating.

[39]

"He composed himself on his Back, and lay in a still posture for some time; while I held his Right-hand, Doctor Baynard laid his Hand on his Heart, and Mr. Skrine held a clean looking-glass to his Mouth. I found his Pulse sink gradually, 'till at last I could not feel any, by the most exact and nice touch. Doctor Baynard could not feel the least motion of his Heart, nor Mr. Skrine the least soil of breath on the bright mirror he held to his Mouth; then each of us by turns examin'd his Arm, Heart, and Breath, but could not, by the nicest scrutiny, discover the least symptom of life in him.

"We reasoned a long time about this odd appearance as well as we could, and all of us judging it inexplicable and unaccountable, and finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far, and at last were[40] satisfied he was actually dead, and were just ready to leave him.

"This continued about half an hour, by nine o'clock in the morning in autumn. As we were going away, we observed some motion about the Body, and upon examination found his Pulse and the motion of his Heart gradually returning: he began to breathe gently and speak softly; we were all astonished to the last degree at this unexpected change, and after some further conversation with him, and among ourselves, went away fully satisfied as to all the particulars of this fact, but confounded and puzzled, and not able to form any rational scheme that might account for it. He afterwards called for his attorney, added a codicil to his will, settled legacies on his servants, received the sacrament, and calmly and composedly expired about five or six o'clock that evening. Next day he was opened (as he had or[41]dered) his Body was the soundest and best made I had ever seen; his Lungs were fair, large, and sound; his Heart big and strong, and his Intestines sweet and clean; his Stomach was of a due proportion, the Coats sound and thick, and the villous Membrane quite entire. But when we came to examine the Kidneys, though the left was perfectly sound, and of a just size, the right was about four times as big, distended like a blown Bladder, and yielding, as if full of pap; he having often passed a wheyish liquor after his urine, during his illness.

“Upon opening this Kidney, we found it quite full of a white chalky matter, like plaister of Paris, and all the fleshy substance dissolved and worn away, by what I called a Nephritic Cancer. This had been the source of all his misery; and the symptomatic vomitings, from the irritation on the consentient Nerves,[42] and quite starv’d and worn him down. I have narrated the facts as I saw and observ’d them deliberately and distinctly, and shall leave to the philosophic reader to make what inferences he thinks fit: the truth of the material circumstances I will warrant.”

In this gentleman’s case we may observe, that the contractile power of his Fibres was very much weaken’d, their sensibility in a great measure destroy’d, and his vital energy far exhausted, by the long and severe irritation in his Kidney; and that, when he composed himself on his Back, the motion of the Blood through the Lungs was easily stop’d, in the manner above-mention’d, viz. by the pressure of the Heart upon the left Auricle and Pulmonary Veins; to, which may be added, a small degree of volition in restraining the organs of respiration. In this dead state, we are told, he lay half an hour; in[43] which time the greater part of Blood was drove into the Veins, as generally happens soon after respiration stops. Hence the right Ventricle must have been greatly distended and severely stimulated by the refluent Blood, ’till at length it was brought into a strong contraction, which put the Blood again in motion through the whole Body, and a small spark of vital vigour still remaining, continued it so for eight hours afterwards.

The Mind too, in this case, as in many others of the like kind, was probably tir’d of its communication with the Body, and was willing to take its flight from an habitation in which it felt so much pain.

I have offered this account to the curious, not because I think it altogether satisfactory, but hope, that its insufficiency may induce others to give one more adequate.

If colonel Townshend had not compos’d himself on the Back, could he[44] have produc’d that surprising effect? If he had been turn’d on his Side, would he not have sooner recover’d? Were not the Doctors very blameable for offering to go away without using some means to recover him?

It is observable, that when People are far exhausted by Diseases, and are on the brink of dissolution, they generally lie on their Backs, because they have not muscular force sufficient to support the Body on either Side.

From what has been said concerning the supine portion of the Body, it appears, that it helps considerably to close this scene of life, by stopping the Blood in the Lungs. Hence the immortal Boerhaave observ’d, “[18]Proximam mortis causam, et ultimum ferme omnium Lethalium morborum effectum esse Peripneumoniam.”

If then the supine position has such a remarkable effect in stopping the [45]Motion of the Blood, and consequently in putting an end to this Life, would it not be prudent to turn People on their Sides, and keep them so, who are so far spent in acute Diseases, that, they are unable to poize themselves in that salutary position? Would it not be often a means of prolonging the fatal, and of promoting an happy crisis?

When the force of an acute Disorder, and the strength of Nature are nearly equal, would not the weight of the Heart cast the ballance?

[46]

CHAP. V.

Of the concurring Causes of the Night-mare.

ALthough I have assign'd the supine position of the Body, and the pressure of the Heart upon the Pulmonary Veins and the left Auricle, as the immediate Causes of this Disorder; yet it is necessary to consider several pre-disposing circumstances, which may render some persons more subject to it than others, who may perhaps sleep sometimes on their Backs, and escape it.

The general primary Causes of this Disease are a Plethora, or a too great quantity of Blood, a viscidity or tenacity of the Fluids, and a weakness or inertia of the Solids. Hence, young persons of gross full habits, the robust, the luxurious, the drunken, and they who sup late, are most subject to the[47] Night-mare[19]. Also Women who are obstructed; Girls of full, lax habits, before the eruption of the Menses; of which I have collected the following Cases,

CASE I.

A young Lady, of a tender, lax habit, about fifteen, before the Menses appear'd, was seiz'd with a fit of this Disease, and groan'd so miserably that she awoke her Father, who was sleeping in the next room. He arose, ran into her chamber, and found her lying on her Back, and the Blood gushing plentifully out of her Mouth and Nose. When he shook her, she recover'd, and told him, that she thought some great heavy Man came to her bedside, and, without farther ceremony, stretched himself upon her. She had been heard moaning in sleep several nights before; but, the next day after she imagin'd [48]herself oppress'd by that Man, she had a copious eruption of the Menses, which, for that time, remov'd all her complaints.

CASE II.

A young Lady, about twenty, of a full, sanguineous habit, and lax system of Fibres, labour'd under an obstinate obstruction of the Catamenia for six months. About six weeks after her first period elaps'd, she had a severe fit of the Night-mare, and next morning she spit near a pound of Blood, part of which was coagulated. She complain'd of an anxiety and oppression in her Breast, for several days afterwards. She soon grew well, and continued so 'till a month had pass'd, when the Night-mare return'd, and was succeeded by a spitting of Blood; but the second fit was not so severe as the first. She had periodical fits and discharges of this kind, 'till, by proper remedies, the redundant streams were[49] convey'd through their usual channels, which at the same time carried off the cause and heavy effect of the Nightmare.

CASE III.

A robust servant Girl, about eighteen years old, was severely oppress'd with the Night-mare, two or three nights before every eruption of the Menses, and us'd to groan so loudly as to awake her Fellow-servant, who always shook or turn'd her on her Side; by which means she recover'd. She was thus afflicted periodically with it, 'till she took a bedfellow of a different sex, and bore Children.

CASE IV.

“A Woman, fifty years old, of a good, full, fleshy, strong habit of Body, after her Menses stop’d, was constantly tormented with this Disorder[20].”

[50]

I might add many more instances of this kind, to shew, that the fair sex is subject to the severe insults of this oppressive Disease; but hope these are sufficient to excite the attention of others to make observations of this sort, which are the more necessary, as they have been too much neglected by writers on this subject.

When Women pass the fruitful seasons of life, and the delicate uterine Tubes, contracting themselves, become too rigid, and resist the impetus of the Fluids so as to prevent the usual discharges; then the Fluids, which were formerly periodically evacuated, are amass’d, and collected in the Body, and occasion a Plethora. Hence, Women, about that time, often grow fat, heavy, and sickly, and become more subject to the Night-mare; because the Heart, swell’d with redundant Blood, will bear more heavily on the Pulmonary Veins and left Auricle, when they happen to sleep in a supine position.

[51]

Experience declares, that there is not a more frequent primary Cause of the Night-mare than heavy suppers of tough animal food, and large quantities of soft, thick malt liquors, which distend, and lie long in the Stomach; whose pressure may contribute, in many respects, to produce this Disorder.

1st. Its pressure on the Aorta Descendens will determine a greater quantity of Blood than usual into the Arteries that belong to the Head; and as these turgid vessels run contiguous to the trunks of the Intercostal and eight pair of Nerves, they may perhaps compress them so as to render the Heart, &c. paralytic.

2d. By occupying a large space in the Abdomen, it hinders the full contraction of the Diaphragm, and thus diminishes the cavity of the Thorax, prevents the necessary expansion of the Lungs, and consequently obstructs the motion of the Blood through them.

[52]

3d. Anatomy informs us, that the Diaphragm is not perpendicular to the Spine of the Back, but forms an acute angle with it, and is extended obliquely upwards to the Sternum[21]. Hence, in a supine position of the Body, the Diaphragm may be considered as an inclin’d plane, upon which the surcharg’d Stomach must rest; and its weight on this part will increase the pressure of the Heart on the Pulmonary Veins, as it is connected to the opposite side of the Diaphragm by the Pericardium.

Every one knows that a hearty meal disposes People to sleep. This effect was commonly attributed to the pressure of the Stomach on the descending Aorta: but Doctor Stuart has oppos’d that theory[22]. Doctor Haller has seconded him, and has given his reasons for it. He says, “Si exquisitiori Anatome in situm Ventriculi & Aortæ [53]inquisiveris, reperies vix unquam Aortam a Ventriculo comprimi posse. Dum enim distenditur, antrorsum recedit, et Curvaturam parvam retrorsum ostendit Aortæ, quæ ea Curvatura, interjecto Pancreate, comprehenditur[23]”

This is certainly a just account of the appearance of the Stomach, when it is distended in a dead Body, where the Integuments of the Abdomen, and all resistance to the Stomach’s rising, is taken away: but, if we consider the Stomach distended by any means in a living Body, where

these Integuments still remain in an active state, and resist the motion of the Stomach forwards and upwards; then a great part of its pressure must fall on the Aorta, and confirm the old opinion. That part of the Diaphragm, through which the Oesophagus passes, must be the center of motion in this case; and [54]allowing, that the Stomach moves a little upwards and forwards, in a distended state, yet, as the Abdominal Viscera are in such a fluid or fluctuating condition, that place, which may be deserted by the distention of the Stomach, will be fill'd up by the Pancreas; and by this means, the Aorta may suffer as great a pressure as if it was immediately in contact with the Stomach: the argument, which that industrious Gentleman adds, may be owing to the peculiarity of his own constitution; viz. "Imo vero aucti a pastu veneris stimuli demonstrant, eo tempore motum Sanguinis in Aortam descendentem potius majorem esse, quam minorem[24]".

Doctor Haller seems to have levell'd the force of this argument against a full Stomach being any cause of the Nightmare; but I might mention many facts here to prove the contrary, and among the rest, might add my own case; but, [55]to avoid prolixity, I shall confine myself to one instance.

A corpulent Clergyman, about fifty years old, who is very fond of strong beer and flesh suppers, but so subject to the Night-mare, that he is obliged to stint himself to a certain quantity every night; whenever he happens to take an over-dose, he groans so loudly that he often awakes all the People in the house. He has assur'd me, that, in these fits, he imagin'd the Devil came to his bedside, seiz'd him by the Throat, and endeavour'd to choak him. Next day he observ'd the black impressions of his hard Fingers on his Neck. After being at a wedding or christening, he never escapes it; and his Servant is oblig'd to watch him all the next night, and rescue him from the Paws of Satan, whose dreadful approach always makes him roar loud enough to awake the Servant, if he should happen to be asleep. The Ser[56]vant told me, he always found his Master lying on his Back in the fit.

Hoffman says, "[25]Plethoricos omni cura fugere opportet decubitum supinum, facile enim Incubo premuntur, cujus causa a Sanguinis stagnatione in Pulmones deducenda est."

Doctor Haller assigns a different reason for heavy suppers preventing rest, viz. "[26]Sed etiam cibi immeabiles particulæ in Cerebro minus facile trajactæ, comprimendo Medullam somnum minus benignum faciunt."

It is remarkable, that this Disorder attacks People only in sleep; which, Doctor Young says[27], is owing to the effect that sleep has in increasing all the symptoms of a Plethora. It is true, that sleep retards the motion of the Blood, and checks the serous secretions. "[28].In vasis vero serosis, Lymphaticis et [57] Nervosis circulatio parva, et sæpe nulla est."

There is no occasion to go about proving that the secretion of urine is lessened in bed, for common experience sufficiently evinces it. And it appears, by the experiments of Doctor Robinson[29] and Gorter[30], that perspiration is considerably less in the night than in the day. It must be allow'd, that the heat of the bed-cloaths will rarify the Blood, and also contribute to an universal distension of the Vessels: but all these seem to be rather the effects of lying quiet in a warm bed, than of sleep alone. If so, People might be as readily seiz'd with the Night-mare while they are awake in these circumstances, as when they are asleep, which never happens.

I really can find no way of accounting for this Phænomenon, unless we have recourse to the Soul, or that ac[58]tive principle within us, whose operations, during sleep, are either greatly impeded, or altogether suspended. It is therefore less sensible of any uneasiness in the Body than

when we are awake, and the faculties of the Mind are in action, which is compell'd, by some innate necessity, to avoid any pain, as soon as it perceives it in the Body.

While we are awake, lie on our Backs, and feel any uneasiness in that position, we immediately alter it: but, in sleep, we are not so soon conscious of the Blood's stoppage in the Lungs, nor have we the means of removing that dangerous obstruction so much in our power, because the voluntary motions are then suspended, without which, the position of the Body cannot be changed, nor the cause of the obstruction remov'd.

The insensibility of the Lungs too may contribute to render the obstruction greater, before the Mind becomes[59] conscious of it; for we don't find, that obstructions and inflammations of the Lungs are attended with such an acute pain, as when these Disorders attack other parts of the Body, the Liver, Spleen, and Omentum excepted.

The Night-mare may sometimes seize very plethoric Persons, when they don't lie directly on the Back; for part of the Heart's weight may fall on the Pulmonary Veins, in a lateral position of the Body.

By way of a brief recapitulation of what has been offer'd concerning the Causes in general of this Disorder, I shall conclude this Chapter with the following corollaries.

COR. 1. That they who have a very sensible system of Fibres, and are soon affected by a stimulus, are least subject to the Night-mare.

COR. 2. That sluggish, inactive constitutions are most liable to it.

COR. 3. That the severity of the fit will be always proportional to the sen[60]sibility of the Fibres, and the quantity of Blood.

COR. 4. That the duration of a fit will be proportional to the sensibility and vigour of the constitution.

COR. 5. That they who sup sparingly, and never sleep on their Backs, are seldom or never afflicted with it.

COR. 6. That it is most common in those seasons of the year, which most increase the volume of the Fluids: hence spring and autumn are its most fertile periods.

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[61]

CHAP. VI.

Of the Prognostics of this Disorder.

LEst this Disorder should be thought altogether the work of Imagination, and necessary precautions should be neglected to prevent frequent returns of it; I have collected the sentiments of the ancient Physicians concerning its consequences; whose authority, in this Disease, as well as in many others, I believe, we may safely rely on; because they were wholly ignorant of its immediate cause, and had no favourite theory to support, but faithfully related facts of this kind as they really appear'd.

We find that most of the old observators who have mention'd the Night-mare, reckon it a forerunner of some terrible Disorder: I shall here translate these quotations, for the benefit of my English readers, and add the originals[62] by way of notes, for the perusal of the learned.

"We should endeavour to stop it in the beginning; for, when it returns every night, it portends either Madness, the Epilepsy, or a Mortification[31]."

"The Night-mare is a Disorder which attacks People sleeping, and is of no trifling nature, but precedes dreadful Disorders; viz. the Epilepsy, a kind of Melancholy, and an Apoplexy; and if it returns frequently, it shews that they are not far off[32]."

"The Disease call'd the Night-mare is not a Dæmon, but rather the fore-runner of the Epilepsy, Madness, or [63]a Mortification. We should stop it in the beginning; for, when it continues long, and returns often, it produces some of the above-mention'd Disorders[33]."

"If they, whom the Night-mare seizes in sleep, have cold Sweats, and a palpitation of the Heart after they awake, they are very bad symptoms. They who are long affected with it, have great reason to fear some desperate Disorder of the Head, viz. a Vertigo, an Apoplexy, Madness, a Palsy, an Epilepsy, or some sudden Death: and there are many instances of People being found dead in their beds of this Disorder[34]."

[64]

The celebrated Boerhaave has mention'd the Night-mare among the principal symptoms of an Apoplexy[35].

In order to illustrate these prognostics by modern instances, I have collected several cases, but shall confine myself to the two following.

CASE I.

A Gentleman, about thirty years old, of a full sanguineous habit, and a little intemperate, was tormented with the Night-mare almost every night for two years. He bled often, which gave him short ease; but was at length seiz'd with an Apoplexy, while he had the glass in one Hand and the pipe in the other, and expir'd immediately.

[65]

CASE II.

A Gentleman, about forty-five years old, of a corpulent phlegmatic habit of Body, and an inactive disposition of Mind, complain'd of a vast oppression which he felt in his sleep; upon which he consulted a Physician, who prescrib'd both bleeding and purging, to be repeated as often as it return'd. This prescription was follow'd with success at first, but it became so often necessary, that the patient was not able to bear such evacuations. He therefore was obliged to sleep in a chair all night, to avoid the Night-mare. But one night he ventur'd to bed, and was found half dead in the morning. He continued paralytic two years; and after taking the round of Bath and Bristol, &c. to no purpose, he died an Idiot.

"—D. Abraham Schonnichel, who was a Captain of horse in the Emperor's army, and being fond of[66] drink, was afflicted with the Night-mare as often as he lay on his Back, after taking many medicines it became less frequent. But when, on account of his intemperance, it return'd, I order'd his Chamberlain to rouse him whenever he heard him groan, in sleep; by which means, the fits were shorten'd, but about two years after he died of an Epilepsy[36]."

Cœlus Aurelianus says[37], that this disease was epidemic and kill'd many at Rome.

[67]

As the Romans took little breakfast or dinner, but made supper their principal meal, 'tis probable, that they were very subject to the Night-mare, especially during the Saturnalia, when they held all their repotia or drinking-matches, and indulged themselves in all kinds of intemperance at night.

Galen says, "That the Night-mare is a kind of an Epilepsy, which happens in sleep; and that if it continues long, it will turn to a real Epilepsy[38]."

"An accidental Night-mare is not dangerous; but if it be habitual, it threatens an Epilepsy, Apoplexy, or Melancholy, especially if the Person be subject to a Vertigo in the daytime. If it attacks one between sleeping and waking, it denotes the Epilepsy to be very near; but it is remarkably dangerous, when a cold Sweat, a palpitation of the Heart, [68]a Spasm, or a Fainting fit, succeed it[39]."

"Hoffman mentions the Night-mare among the Symptoms of an Apoplexy, that was cur'd by an over-dose of Camphire[40]."

From these concurring authorities, and the instances that have been given, we have sufficient reason to believe, that the above Diseases often succeed frequent fits of the Night-mare. It is highly probable, that the stagnation of the Blood (which occasions it) in the Pulmonary Veins, right Ventricle, Vena Cava, and the Sinuses of the Brain, may form obstinate obstructions, and [69]leave the rudiments of Polypi in these parts; which may afterwards produce fatal effects. From the situation of the lateral Sinuses, it appears, that in a supine position of the Body, the Blood must move out of them, contrary to its own gravity. Hence, by their turgescence, the Cerebellum may be compress'd, and the animal functions impeded. It was probably to prevent this pressure on the Cerebellum, and to promote the return of the Blood from the Head, that Nature has plac'd these reservoirs in the upper part of the Heads of Quadrupeds.

"If this disorder grows more severe, there is danger of being suffocated in the very fit, and of its producing an Apoplexy or some terrible disorder of the Head, either by pouring Blood into the Ventricles, or substance of the Brain, or by obstructing the Carotid Arteries, or Choroid Plexus: therefore such Diseases[70] are to be prevented by proper methods[41]."

Does not this disease kill many who go to bed in perfect health, and are found dead in the morning? Does not the Night-mare carry many drunkards out of this world? Is it not a species of an Apoplexy? Is it not the final cure of all chronic Diseases?

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[71]

CHAP VII.

Of the Cure.

WHen People are found in a fit of the Night-mare, the most effectual remedy is to rouse them as soon as possible, by changing the position of the Body, and applying some keen stimulus immediately, such as pricking with a pin, speaking loud, &c. and if they recover the least degree of voluntary motion, the happy crisis is for that time obtain'd, as Actuarius and Willis observ'd.

I have often been so much oppress'd by this enemy of rest, that I would have given ten thousand worlds like this for some Person that would either pinch, shake, or turn me off my Back; and I have been so much afraid of its intolerable insults, that I have slept in a chair all night, rather than give it an opportunity of attacking me in an horizontal position.

[72]

Doctor Lower relates a remarkable similar case, which I shall here translate. He says, "[42]I knew a Gentleman, who, in every other respect, enjoy'd perfect health, but was so subject to the Night-mare, that, whenever he slept on his Back, he was seiz'd with it in such a violent manner, that he was oblig'd to keep a Servant in the same bed with him; who, upon hearing his Master groan and Sigh (with which Symptoms it us'd to begin) immediately turn'd him on his Side; by which means it was, and may be always, remov'd."

'Tis observable, that people are rous'd out of a fit of the Night-mare, sometimes, by sound alone. I remember to have been under it, when a Servant came in the morning to make a fire, and let the coal-box fall at the door; the noise of which effectually reliev'd me. The vibrations or undulations of the air beating upon the drum of the [73] Ear, may act as a successful stimulus in this case.

As this Disease seems to arise immediately from a supine position of the Body in sleep, we should take care to prevent it before we fall asleep, by composing the Body on either Side. The sagacious Hoffman observes, that the safest posture in sleep, is on either Side, with the Head rais'd, and the Limbs bent inwards to the trunk of the Body[43].

Some ingenious men have imagin'd, that the bending of the Limbs in sleep is owing to the strong tendency which the flexor Muscles have to contraction; but I humbly suppose, it is rather a voluntary motion, intended to fix the Body on the Side, without the continued action of any of the voluntary Muscles afterwards; for without the flexion of the Joints in sleep, it would be a kind of labour to keep the Body pois'd on such an narrow surface. To [74]demonstrate this, I shall avoid mathematics, and appeal to common sense, for an easy experiment. Suppose one should endeavour to poise a thin plate of tin on its edge upon a smooth, level table; if he be not an expert equilibrist, he will find it difficult; but if he bends the plate, then the problem becomes as easy as the well known method of making an egg stand on its end.

This easy method, which nature has contriv'd to preserve the human Body on its side, is a sufficient recommendation of that position, and a strong precaution against lying on the Back, which is the posture of dead Bodies.

Before any regular or effectual plan of curing, or rather preventing, this Disease, can be propos'd, it will be always necessary to consider minutely the primary or pre-disposing causes of it, formerly mention'd.

If the primary cause be a weakness of the Fibres, then strengthening or[75] astringent medicines are proper; which, by increasing the cohesion of the constituent particles of the Solids, will make the Fibres more dense, brace them up to a proper pitch, and quicken their vibrations. The principal Medicines of this class are iron, and its preparations, the Bark, the wild Valerian-root, and the cold Bath.

If it arises from an inertia or indolence of the Solids, nervous medicines will best answer that indication; which, by stimulating the lazy inactive Fibres, will increase their elasticity, invigorate their contractions, accelerate the motion, and break the tenacity of the Blood.

If the Blood be too thick, attenuants should be us'd, such as, spiritus Mendereri[44], vegetable subacid liquors, saponaceous medicines, and plenty of vinegar at meals, which, according to the great Boerhaave, is a powerful diluent[45].

[76]

A Plethora or redundance of Blood, is certainly the most general cause of the Night-mare, and requires immediate evacuations, which principally consist in bleeding or purging. But the former is most effectual. However, Bleeding should not be often repeated, unless absolutely necessary, lest, it should become a custom, which might, at the same time, procure a short intermission, and increase the cause of the Disease; and also prove inconvenient and dangerous; for if, at any establish'd period, Bleeding should be omitted, then the person is expos'd to all the bad effects of a Plethora, enumerated by Boerhaave, viz. Inflammations, Suppurations, Gangrenes and Death[46].

It is well known, that nothing genenerates Blood faster, or contributes more to a Plethora, than bleeding often, which some are fond of, without assigning any reason for it, except its being a [77]custom, which experience proves a very bad one.

Van Sweiten says, "He saw a Woman, who, being subject to violent affections of the Mind, was bled above sixty times in one year. She by that means grew very fat, and increas'd her weight 150 pounds in a few months. By bleeding often new Blood was generated, and the necessity of bleeding became more frequent, 'till she was so far relax'd, that she fell into a Dropsy[47]."

He adds, "That bleeding, which some use by way of precaution, is a bad custom, since it weakens the Solids, and renders the Body more subject to a fresh accumulation of Fluids."

Experience has convinced me of the truth of this observation; for, while I practis'd bleeding every month or six weeks, I found the Night-mare return'd on me at these periods, rather [78]aggravated than abated. My bad success made me alter my method; and, instead of drawing eight or ten ounces of blood at once, I drew twenty, and liv'd low, on thin, astringent diet, for a few days afterwards; in which time the dilated vessels contracted themselves, and resisted the

sudden distension, which taking large quantities of nourishing diet, after plentiful evacuations, must always produce; as our medical Bard justly expresses it,

“Too greedily th’ exhausted Veins absorb The recent Chyle[48].”

By observing Boerhaave’s method of curing a Plethora, viz. using a thin, light diet after bleeding, and gradually prolonging the time between each evacuation, I have reduc’d my bleedings to one every autumn; and (thank Heaven) have in a great measure conquer’d that Monster of the night, which so [79]often threaten’d me with immediate destruction.

Experience also assures us, that large evacuations may be made by strong purges; such as Jalap, Scammon. &c. which greatly dissolve, and diminish the quantity of the Blood.

Hence, we see the reason why Paulus Egeneta justly prescrib’d Scammony in this Disease[49]. But in this kind of evacuations, Boerhaave’s salutary rule should be also observ’d; viz. “Omissione sensim introducta.”

’Tis needless here to take notice of all the ill-adapted farrago of Medicines prescrib’d by many of the old Physicians, who did not know the cause of this Disorder.

I cannot understand why Piony was reckon’d, by them, such a famous specific for the Night-mare, which, taken internally, is only a gentle attenuant: and ’tis very surprising, that Doctor Willis should be so superstitious as to [80]recommend balls made of Piony and Corral to be tied about the Neck, by way of a sacred nostrum against this Disease[50].

Temperate living is certainly the most effectual method of preventing this and many other Disorders. Vegetable and flesh meat of easy digestion; thin, subacid, diluent liquors, taken in moderate quantities; light or no suppers; brisk exercise of all kinds; high pillows, and sleeping on the Side, are the most sovereign Prophylactics, or preventives.

If People subject to the Night-mare be so fond of heavy flesh-suppers, that they can neither rest with them nor without them, they should sup early, and sit up or exercise two or three hours afterwards; and when they go to bed, they should lie on the right Side, that the food may have the advantage of its own gravity in passing [81]out of the Stomach into the Guts. In that position the Heart will fall on the Mediastinum, which, being a flexible Membrane, will be an easier support to the Heart than if it play’d against the hard Ribs, which is always the consequence of lying on the left Side.

When the fair Sex is oppress’d with this Disorder, and the precedent cause is an obstruction of the Catamenia, the defect of that natural discharge may be supply’d by a moderate bleeding; and proper remedies should be us’d to clear the obstructed tubes, and open the flood-gates to promote the ebb of the next full tide. But if the cause be common to both sexes, the same methods may be follow’d, proper allowance being made for the delicacy of the female constitution.

Excessive drinking at night, as well as excessive eating, should be avoided; but of the two evils, the former is the lesser, as our British Celsus observes:[82]

“Tutior autem est in potione, quam in esca, intemperantia[51].”

As intoxication subjects People to most dreadful fits of this Disorder, as well as to many other accidents, it should, by all means, be shun’d. Lucretius has so well painted its bad effects, that, I presume, my polite reader will think his description of it neither tedious nor foreign.

Denique cur, Hominem cum vini vis penetravit
Acris et in Venas discessit deditus ardor,
Consequitur gravitas membrorum? Præpidiuntur
Crura vacillanti? tardescit Lingua? madet mens?
Nant Oculi? clamor singultus, jurgia gliscunt?
Et jam cætera de genere hoc quæcunq; sequuntur?
Lib. 3.

Besides, when wine's quick force has pierc'd the Brain,
And the brisk heat's diffus'd thro' every Vein,
Why do the members all grow dull and weak?
The Tongue not with its usual swiftness speak?
The Eye-balls swim? the Legs not firm and straight,
But bend beneath the Body's natural weight:
Unmanly quarrels, noise, and sobs deface
The powers of Reason, and usurp their place.
CREECH.

[83]

As Nature is the subject of Physic and Poetry, we find, that the sons of Homer and Esculapius generally agree in giving salutary instructions to Mankind; but as the former convey their admonitions in the most agreeable manner, I shall conclude this Essay with two quotations from them.

The first Physicians by debauch were made,
Excess began, and sloth sustains the trade:
By chace our long-liv'd Fathers earn'd their food,
Toil strung their Nerves and purify'd their Blood, &c.
DRYDEN.

Quæ virtus et quanta, boni, sit vivere parvo,
(Nec meus hic sermo est, sed quem præcepit Ofellus,
Rusticus, abnormis sapiens, crassaque Minerva)
Discite, non inter lances, mensasque nitentes;
Cum stupet insanis acies fulgoribus, & cum
Adclinis falsis animus meliora recusat.
* * * * * * * * * * * * * * * * * * * *
Accipe nunc, victus tenuis quæ, quantaque secum
Adferat, imprimis valeas bene: nam variæ res
Ut noceant Homini, credas, memor illius escæ
Quæ simplex olim tibi sederit, at simul assis
Miscueris elixa, simul conchylia turdis;
Dulcia se in Bilem vertent, Stomachoque tumultum
Lenta ferat pituita. Vides, ut pallidus omnis
Cæna desurgat dubia? quin corpus onustum
Hesternis vitiis, animumque prægravat una
[84] Atque adfigit humo divinæ particulam auræ.
Alter, ubi dicto citius curata sopori
Membra dedit, vegetus præscripta ad munia surgit.
HORAT. Sat.

What, and how great the virtue and the art
To live on little with a chearful Heart!
(A doctrine sage, but truly none of mine)
Let's talk, my friends, but talk before we dine;
Not when the gilt buffet's reflected pride
Turns you from sound Philosophy aside,
Not when from plate to plate the Eye-balls roll,
And the Brain dances to the mantling bowl,
* * * * * * * * * * * * * * * * * *
Now hear what blessings temperance can bring;
(Thus said my friend, and what he said I sing)
First health: the Stomach cramm'd with ev'ry dish,
A tomb of boil'd and roast, and flesh and fish,
When Bile and Wind, and Phlegm and Acid jar,
And all the Man is one intestine war,
Remembers oft the School-boy's simple fare,
The temperate sleeps, and spirits light as air.
How pale each worshipful and rev'rend guest
Rise from a clergy or a city feast!
What life in all that ample Body? say:
What heav'nly particle inspires the clay?
The soul subsides and wickedly inclines
To seem but mortal, ev'n in sound Divines.
On morning wings, how active springs the Mind
That leaves the load of yesterday behind?
POPE.

FOOTNOTES:

1 De anim. brutor. cap. 6. p. 127.

2 Lom. Observat. p. 80.

3 De morb. caput. p. 604.

4 Baxter on the Soul, p. 257. quarto edit.

5 A being which that vain chymist invented to preside over the animal functions. See his Works, cap. 1. & Van Helmont. de Archeo faber.

6 De Corde, p. 145.

7 Sepulchret. Anatom. tom. 1. p. 180.

8 Comment in aphoris. 578.

9 De Dieta, scol. xxxv.

10 Haller, Prim. lin. DLXXII. Boerhaave, prelect. academ. de somno.

11 Winslow, de Poitrine, sect. 74. Eustachius, tab. xv. fig. 2. and tab. xxv.

12 Macrob. in som. sup. lib. v. cap. 3.

13 To say that Voluntary Motions by custom become Involuntary, may appear a contradiction; but if we reflect on several phænomena of Animal Motion, that assertion will not appear so absurd. 'Tis universally allow'd, that the Muscles of the Larynx and Tongue, Adductors and Abductors of the Eyes are of the Voluntary kind; yet, by endeavouring to imitate those who Stammer or Squint, these disagreeable habits are acquir'd so, as not to be afterwards corrected by the strongest efforts of the Mind. As the Heart of an Infant beats, at a mean, about 11520 times every 24 hours, during the first year, 'tis probable, that, by this frequent Motion, the action of that Muscle may become independent of the Will ever afterwards: tho' it might be as Voluntary at first, as the action of the Muscles concern'd in sucking the Nurse's Breast.

14 Harvey de Generatione Animal. & Malpighius de Incubatione.

15 I remember that the Heart of a Gurnet beat regularly an hour and forty minutes after I separated it From the Body. For many such experiments, see Doctor Whytt's ingenious Essay on Vital Motions.

16 His. Vit. & Mort.

17 Page 307.

18 Aphoris. 874.

19 Vide Lom. Observat. p. 80. & Etmuller, de Incubo.

20 Diemerbroek.

21 Winslow. Traite de Muscles, p. 554.

22 Philos. Trans. N° 427.

23 Comment in Instut. DXCI.

24 Loc. mox, citatione.

25 De Dieta, &c. See. scol xxxix.

26 Prim. Lin. DLXXVIII.

27 Treatise on Opium, p. 26.

28 Boerhaave, Prelect. Academic, de somno.

29 On Food and Discharges, tab. 3.

30 Exercit. de Perspiratione.

31 Cavendum est ab initio, nam ubi diu durat assidue irruens magnos Morbos, Insaniam, Morbum comitialem, aut siderationem denunciat. Paul. Egenet. lib. 3. c. 19.

32 Incubus, vitium quod in somnis prehendit. Sua quidem natura non admodum parvum est, verum, magna quædam mala portendit, Morbi comitialis, melancholiæ species, Morbum attonitum, atque ea non procul abesse. Si frequens Incubus invadit, significat. Actuar. lib. v. cap. 17.

33 Morbus, qui Incubus appellatur, non est Dæmon, sed magis prœmium Morbi Cometialis, Insaniæ aut Siderationis. Cavendum est dum in principio, inveteratum assidue incidens, quosdam ex relatis Morbis inducit. Ætic. Sermo. c. 12.

34 Sin vero, ubi idem dormientes occupat, et post Expergefactionem frigidi oriuntur sudores, et Cordis tremor, pessimum est. Qui hac ægritudine multo jam spatio temporis, ac frequenter occupantur, hisce grave aliquod Capitis malum, puta Vertiginem, Morbum tum attonitum, tum Comitialem, Maniam, Nervorum distentionem, aut subitam Mortem impendere sciendum est. Scil. hoc modo repertos mortuos, in ipso etiam cubili multos esse constat. Lom Observat. Medicinal. p. 80.

35 Aphoris. 1020.

36 Generosus et sternuus D. Abrahamus Schonicel, equitum in exercitu imperatorio magister, ebrietati deditus; quoties supinus incumberet, Incubo graviter affici solebat: post multa remedia exhibita, malum rarius quidem invasit; cum tamen, ob repletionem, et compotandi consuetudinem recurreret, monui cubicularium, ut quoties in somno queritantem et lamentantem audiret, statim corpus leviter vellicaret, dormientem compellaret, et excitaret, quo pacto, insultus breviores quidem sensit. Biennio tamen post, Epilepsia extinctus est. Baldassar Timeus, Cas. Med. lib. v.

37 De Morb. Chron. lib. v. cap. 3.

38 De Utilitat. Respirationis.

39 Incubus accidentalis parum mali refert. Habitualis vero, Epilepsiam, Apoplexiam, aut Melancholiam portendit, presertim, si adsit Vertigo diurna; si accedit partim dormienti, partem vigilanti, Epilepsia propinquior est. Sed adhuc deterior, si post excretionem sudoris frigidi, tremor Cordis, Spasmus, aut Sincope, sequatur. Etmul. de Incubo.

40 Consultat. et Respons. Med. cas. xix.

41 Metus est, ne hoc malum ingravescens in ipso paroxyso ægrum suffocet, vel sanguinem in Ventriculis Cerebri aut ejus substantia effundendo, vel Carotides Arterias, vel Plexum Choroidem, aut eorum poros obstruendo, Apoplexiam vel alium similem gravem Cerebri Morbum ægro accersat, ideoque, tempestiva hujusmodi, mala, curatione, sunt præcavenda. Hen. Pagius apud Theodor. Biblioth. Med.

42 De Corde, p. 145.

43 De Dieta, &c. cap. x. scol. xxxiii.

44 Pharmacop. Edinensis.

45 Element. Chem. Process, L.

46 Aphoris. 106.

47 Comment, in Aphoris. 106.

48 Armstrong's Poem on Health.

49 Lib. 3. cap. xv.

50 De Anima Brutor. cap. 6.

51 Mead, Monit. Med. de Vitæ Regimine.

FINIS.